

COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Blue Ridge Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

Stanley Furniture Company
140 Hollie Drive
Martinsville, Virginia
Permit No. BRRO-31027

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Stanley Furniture Company, Inc. has applied for a Title V Operating Permit for its Martinsville facility. The Department has reviewed the application and has prepared a Title V Operating Permit.

Engineer/Permit Contact: _____
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Date: _____

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Date: _____

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Date: _____

FACILITY INFORMATION

Permittee

Stanley Furniture Company
140 Hollie Drive
Martinsville, VA 24112

Facility

Stanley Furniture Company
140 Hollie Drive
Martinsville, VA 24112

County-Plant Identification Number: 51-089-0122

SOURCE DESCRIPTION

NAICS Code: 337122 – Non-upholstered Wood Household Furniture Manufacturing.

This facility used to be a conventional household wood furniture manufacturing plant. The plant used to receive dried rough sawn lumber, perform various woodworking processes, and then finished the wood using primarily spray stains, sealers, and lacquers. The facility is located in the town of Martinsville in Henry County and is covered by the November 17, 1999 Prevention of Significant Deterioration (PSD) permit to construct and operate a new wood furniture manufacturing facility. The PSD permit was amended on July 22, 2002 to remove state toxics since the facility is subject to the wood furniture MACT (Subpart JJ). On October 19, 2011 the facility signed a mutual shutdown agreement for the woodworking operations and associated baghouses that were relocated overseas. In August of 2013 the facility signed a mutual shutdown agreement for 18 spray booths, 5 dip tanks, 2 washoff booths and 2 wash-off tanks.

The facility is currently comprised of the following equipment:

- one 26.5 MMBtu/hr Kewanee boiler fired with natural gas with distillate oil used as a backup fuel during curtailment or testing. (NSPS Dc)
- finishing consisting of 6 spray booths and 1 wash-off tank. (MACT JJ)

In addition to particulate matter emissions from coating operations, the Martinsville Plant emits volatile organic compound (VOC) and Hazardous Air Pollutant (HAP) emissions. The facility is a major source for VOC; however, the source requested a limit for HAP making them a synthetic minor source for HAP.

The Maximum Achievable Control Technology (MACT) standard for wood furniture plants (40 CFR 63 Subpart JJ) applies to the finishing operations portion of the facility as a new source after the December 7, 1995 MACT applicability date. This facility is a PSD definition major source due to VOC PTE emissions above 250 tons/yr. It is located in an area currently regarded as in attainment for all pollutants.

The facility has one combined PSD/minor New Source Review permit issued on November 17, 1999 and amended on July 22, 2002.

The application for renewal of this federal operating permit was received on May 29, 2012 and was deemed timely and administratively complete.

COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emission units at the facility are reflected in the Title V permit on Page 5 (significant units) and Condition 32 (insignificant units).

EMISSIONS INVENTORY

A copy of the 2012 annual emission update is attached. Emissions are summarized in the following table.

	2012 Criteria Pollutant Emission in Tons/Year					
	CO	VOC	SO ₂	PM-10	NO ₂	PM _{2.5}
Total	0.02	8.6	0.000	0.001	0.024	0.001

	2012 Hazardous Air Pollutant Emission in Tons/Year (largest individual HAP tabulated, see attached emissions inventory for complete list)			
	Toluene	Methanol	Xylenes	Glycol Ether
Total	0.424	0.039	0.087	0.804

EMISSION UNIT APPLICABLE REQUIREMENTS

The following section discusses requirements for the emissions units at the facility that are subject to Title V permitting. These requirements come from applicable federal requirements. The conditions are not repeated verbatim from the permit. The regulatory authority for each condition is listed in parentheses () below each condition in the permit.

Fuel Burning Equipment

Kewanee Boiler (EU-FB)

EU-FB is a 26.5 MMBtu/hr natural gas fired boiler that uses No. 2 fuel oil (24.8 MMBtu/hr burning No. 2

fuel oil) as a backup fuel during curtailment or testing. This boiler was installed in 1999 is subject to NSPS Subpart Dc and is included in the July 22, 2002 PSD/minor NSR permit.

Limitations

- Condition 1** The approved fuels for the Kewanee boiler are natural gas and distillate oil. The condition defines distillate oil for this facility.
- Condition 2** The Kewanee boiler is limited to consuming no more than 450,000 gallons of distillate oil per year.
- Condition 3** The Kewanee boiler has hourly and annual (BACT) limits for criteria pollutants.
- Condition 4** Visible emissions from the boiler shall not exceed 10 percent opacity except during one six-minute period in any hour in which visible emissions shall not exceed 20 per cent opacity.

Monitoring & Recordkeeping

- Condition 5** Daily visual emission observations are required on the Kewanee boiler when it is using fuel oil.
- Condition 6** The source is required to take the following measures to minimize the duration and frequency of excess emissions, with respect to the boiler: operator training, written operating procedures and a maintenance schedule.
- Condition 7** The source is required to obtain fuel supplier certifications for each shipment of oil.
- Condition 8** The source is required to maintain records of all emission data and operating parameters necessary to demonstrate compliance with the permit. The records shall include, but are not limited to: consumption of natural gas and/or distillate oil, fuel supplier certifications, documentation of the information used in the emission calculations (including emission factors and/or control efficiencies), scheduled and unscheduled maintenance and operator training.

The source has indicated in the application that the boiler is not subject to the Area Source Boiler NESHAP since it is primarily burning natural gas with fuel oil as a backup during curtailment and testing.

The monitoring (daily visual emission observations when burning fuel oil, operator training and maintenance schedule) outlined in this section in conjunction with the recordkeeping (daily, monthly and annual fuel use, fuel certifications and documentation of the information used in calculations (emission factors) to show compliance with the emission limits contained in this permit) are considered sufficient monitoring and recordkeeping to ensure compliance with the limits included in this permit.

Testing

See the Facility Wide Conditions section on Page 8.

Reporting

Condition 9 The source is required to submit fuel quality reports to the Blue Ridge Regional Office and EPA Region III, within 30 days after the end of each semi-annual period.

Furniture Finishing Requirements

SB-1	Spray Booth	SB-5	Spray Booth
SB-2	Spray Booth	SB-6	Spray Booth
SB-3	Spray Booth	WOT-1	Wash Off Tank
SB-4	Spray Booth		

Limitations

Condition 10 Particulate emissions from the coating booths are required to be controlled by water curtains or by an alternate control device with equivalent efficiency.

Condition 11 VOC emissions from the finishing process shall be minimized by proper spraying technique, the use of HVLP and air assisted airless spray equipment and by complying with MACT JJ.

Condition 12 VOC are required to be handled and stored in a manner that minimizes emissions.

Condition 13 Visible emissions from the spray booths shall not exceed 5%.

Condition 14 Total emissions from the finishing operations are limited to 4.8 tons/yr for PM-10 and 338 tons/yr VOC.

Monitoring & Recordkeeping

Condition 15 Each spray booth is required to be observed for the presence of visible emissions at least once per day that the booth operates.

Condition 16 The spray booths are required to be equipped with a device to continuously measure water flow rates in the water curtains or a pressure drop if dry filters are used.

Condition 17 The source is required to maintain records of all emission data and operating parameters necessary to demonstrate compliance with the permit. The records shall include, but are not limited to: consumption of VOC, calculate air pollutant emissions of PM-10, documentation of the information (emission factors and/or control efficiencies) used in the calculations to show compliance with the emission limits contained in this permit,

maintain records to show compliance with monitoring requirements, scheduled and unscheduled maintenance and operator training.

The monitoring (daily visible emission observations) and recordkeeping (VOC consumption, emission calculations and records documenting the information used in the emission calculations including emission factors and/or control efficiencies) that is included in this section, in conjunction with the monitoring and recordkeeping included in the MACT JJ section of the permit is adequate to show compliance with the limits that are included in the permit for the finishing equipment.

Testing

See the Facility Wide Conditions section on Page 8.

Process Equipment Requirements - MACT Subpart JJ – Wood Furniture Manufacturing Operations

The finishing area is subject to the requirements of 40 CFR Part 63, Subpart JJ – National Emission Standards for Wood Furniture Manufacturing Operations. The permit includes all requirements of Subpart JJ. Subpart JJ was revised on November 21, 2011. Revisions for wood furniture manufacturing operations include a 1 percent formaldehyde coating and contact adhesive limit and an alternative 400 pound per 12-month formaldehyde use limit as well as a prohibition on the use of conventional spray guns. The effective date for these requirements is 3 years from the effective date of the standards or November 21, 2014.

Condition 18 The facility is required to be operated in compliance with the requirements of 40 CFR Part 63 Subpart JJ, including future revisions.

Limitations

Condition 19 Emission standards for Volatile Hazardous Air Pollutants (VHAP) including a weighted average VHAP content, use of compliant finishing materials, cleaning operations strippable spray booth coating limits, compliant contact adhesives and formaldehyde limits.

Condition 20 Requirements to show continuous compliance with the VHAP emissions limits.

Testing

Condition 21 Requires any compliance testing that is conducted be conducted using test methods and procedures as specified in 40 CFR 63.805 of Subpart JJ.

Submittals

Condition 22 Requires that all submittals regarding Subpart JJ be sent to both the EPA and DEQ.

Monitoring and Recordkeeping

- Condition 23** The source is required to meet operational and maintenance requirements including operating and maintaining the facility in a manner consistent with good air pollution control practices for minimizing emissions and correcting malfunctions as soon as practicable.
- Condition 24** The source is required to develop and implement the work practice standards outlined in the permit including the following: Work Practice Implementation Plan, Operator Training Course, Inspection and Maintenance Plan, Cleaning and Washoff Solvent Accounting System, Chemical Composition of Cleaning and Washoff Solvents limits, Spray Booth Cleaning, Storage Requirements, Application Equipment Requirements, Line Cleaning, Gun Cleaning, Washoff Operations and Formulation Assessment Plan for Finishing Operations.
- Condition 25** The source is required to maintain records for emission limit purposes, calculations, the work practice implementation plan, compliance certifications, records associated with the compliance status reports and semiannual reports.

The monitoring and recordkeeping that is included in the permit is taken from the MACT regulation and is considered adequate (in conjunction with the monitoring and recordkeeping included in the Furniture Finishing Requirements section of the permit) to show compliance with the limits that are included in the permit.

Notification of Compliance

- Condition 26** The source is required to submit notifications of compliance that are signed by a responsible official and the notification is required to include the methods that were used to determine compliance, the results of all performance tests, the methods used for determining continuing compliance, the type and quantity of hazardous air pollutants emitted, an analysis demonstrating whether the facility is a major source or an area source and a statement by the permittee as to whether the facility has complied with Subpart JJ as expressed in the permit.

Reporting

- Condition 27** The source is required to submit reports demonstrating continuous compliance and any exceedance of a baseline level.

Facility Wide Conditions

- Condition 28** The source is required to be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods.

- Condition 29** Total HAP emissions from the facility are limited to 9.5 tons/year for individual HAP and 24.5 tons/year for all HAP combined.
- Condition 30** The source is required to maintain records of monthly and annual emissions of HAP to verify compliance with the emission limitations in Condition 29.
- Condition 31** The source is required to take measures to minimize the duration and frequency of excess emissions, including the following: develop a maintenance schedule and maintain records of all scheduled and unscheduled maintenance, maintain an inventory of spare parts, have available written operating procedures and train operators in the proper operation of all air pollution equipment. Records of maintenance and training are required to be maintained on site for a period of five years.

STREAMLINED CONDITIONS

Condition 4 (Emission Controls) (T5-11) of the July 22, 2002 minor NSR Permit has been streamlined out to remove language regarding complying with the Work Practice Standards of 40 CFR, Subpart JJ. The Work Practice Standards for MACT JJ have been included in the Title V Permit (See the MACT JJ Section of the Title V Permit).

Condition 7 (Plantwide Finishing Emission Limits) (T5-14) of the July 22, 2002 minor NSR Permit has been streamlined to remove language regarding complying with the New Source Emission Limits specified in MACT Subpart JJ. The New Source Emission Limits for MACT JJ have been included in the Title V Permit (See the MACT JJ Section of the Title V Permit).

Conditions 11 and 31 (Requirements by Reference) of the July 22, 2002 minor NSR Permit have been streamlined out of the permit because the applicable parts of 40 CFR 50 , Subpart Dc and 40 CFR 63, Subpart JJ have been included in the Title V Permit.

Condition 12 (On Site Records) (T5-17) of the July 22, 2002 minor NSR Permit has been streamlined to remove the language regarding maintaining records necessary to show compliance with the provisions of 40 CFR 63, Subpart JJ. The recordkeeping requirements for MACT JJ have been included in the Title V Permit (See the MACT JJ Section of the Title V Permit).

Condition 13 (Semi-Annual Reports) of the July 22, 2002 minor NSR Permit has been streamlined because the Semi-Annual Reporting requirements of MACT JJ have been included in the Title V Permit (See the MACT JJ Section of the Title V Permit).

Conditions 37 (T5-58) and 40 (T5-70) of the July 22, 2002 minor NSR permit have been streamlined. The requirements contained in these two conditions are included in the General Conditions section of the Title V permit.

The corresponding Title V permit condition is included in parentheses above and the Title V permit conditions include the corresponding minor NSR permit condition in the citation.

Conditions 15-24 (Process Requirements, Operating/Emission Limitations and Initial Compliance Determination requirements associated with the Woodworking Equipment), and 41 (Permit Invalidation) of the July 22, 2002 minor NSR Permit are no longer applicable, therefore, they have not been included in the permit. The Woodworking Equipment was permanently shut down on October 19, 2011 (Conditions 15-24) and Condition 41 relates to the construction of the source which has already been completed.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

Comments on General Conditions

35-40 Permit Expiration

These conditions refer to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.2-604 and §10.1-1185 of the *Code of Virginia*, and the “Department of Environmental Quality Agency Policy Statement No. 2-09”.

46 Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

65-68 Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Conditions 46 and 65-68. For further explanation see the comments on General Condition 46 above.

74 Asbestos Requirements

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

STATE ONLY APPLICABLE REQUIREMENTS

None

FUTURE APPLICABLE REQUIREMENTS

Subpart JJ was revised on November 21, 2011. Revisions for wood furniture manufacturing operations include a 1 percent formaldehyde coating and contact adhesive limit and an alternative 400 pound per 12-month formaldehyde use limit as well as a prohibition on the use of conventional spray guns. The effective date for these requirements is 3 years from the effective date of the standards or November 21, 2014. This requirement was included in the permit with the effective date of November 21, 2014 (T5-19d).

INAPPLICABLE REQUIREMENTS

40 CFR 63, Subpart JJJJJJ – National Emission Standards for Hazardous Air Pollutants For Industrial, Commercial, and Institutional Boilers Area Sources – The boiler is natural gas fired and burns No. 2 fuel oil only as a backup fuel during curtailment or testing. Natural gas fired boilers are not subject to the area source boiler NESHAP.

40 CFR 63, Subpart DDDDDD - National Emission Standards for Hazardous Air Pollutants For Industrial, Commercial, and Institutional Boilers Major Sources – The facility is a synthetic minor source of HAP and is therefore not a major HAP source and subject to the major source boiler NESHAP.

The facility is subject to 40 CFR 98.346 and is required to maintain GHG monitoring records and calculations. However, the requirements contained in the GHG Reporting Rule in 40 CFR 98 are currently not included in the definition of applicable requirements in 40 CFR 70.2 and 71.2 and are therefore not included in the Title V permit. There are no applicable GHG permitting requirements.

COMPLIANCE PLAN

None

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9VAC5-80-110.

Insignificant emission units are shown in the table contained in Condition 32 of the permit.

CONFIDENTIAL INFORMATION

No confidential information request has been made. All portions of the Title V permit and application are available for public review.

PUBLIC PARTICIPATION

The draft permit will be published in the *Martinsville Bulletin* on October 14, 2013. The public comment period ran from October 14, 2013 to November 13, 2013. No comments were received. The EPA review period ended on December 2, 2013. No comments were received.

Attachment:

2012 Annual Emission Update